

## CLAIMS

- 1) A device for dispensing CO<sub>2</sub>, that is to say carbon or carbon dioxide, which can be fitted in aquariums or containers for holding live fish, this device  
5 consisting of a dispenser casing (11) or body, characterised in that the dispenser body (11) is equipped with a mixing chamber (15) into which a flow of water is delivered by a pump (12) and a flow of CO<sub>2</sub> from an infeed duct (18); the mixing chamber (15)  
10 being bordered by at least one filtering element (13) which occupies the lower half of the dispenser body (11), which can also be closed by a mesh cover (14).
- 2) A device for dispensing CO<sub>2</sub> according to the previous claim, characterised in that the filtering element  
15 (13) consists of a sponge with a consistency of around 20ppi, this sponge occupying approximately all the lower half of the dispenser body, in a part opposite the area where the pump (12) is fitted.
- 3) A device for dispensing CO<sub>2</sub> according to either of the  
20 previous claims, characterised in that the filtering element (13) consists of any material of any kind and density which is able to retain the microbubbles and allow only the water in which the CO<sub>2</sub> is dissolved to pass through.
- 25 4) A device for dispensing CO<sub>2</sub> according to either of the previous claims, characterised in that the flow of water delivered by the pump (12) through the inlet duct (16), placed in a substantially horizontal position inside the mixing chamber (15), is  
30 substantially at right angles to the CO<sub>2</sub> injector (17) which is, instead, arranged vertically with the gas delivery zone positioned in correspondence with the water output zone.

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- 5) A device for dispensing CO<sub>2</sub> according to either of the previous claims, characterised in that the flow of water delivered by the pump (12) is mixed with the flow of gas delivered by the injector (17), since the water and gas meet at right angles to each other at the start of the mixing chamber (15).
- 6) A device for dispensing CO<sub>2</sub> according to either of the previous claims, characterised in that inside the mixing chamber (15) the pump (12) creates a turbulent movement causing the formation of microbubbles of CO<sub>2</sub>, which are retained inside the dispenser by the sponge (13) and then distributed in the water, mixing perfectly with it.
- 7) A device for dispensing CO<sub>2</sub> according to either of the previous claims, characterised in that the flow created by the pump (12) establishes a continuous cycle of CO<sub>2</sub>-poor water (A) which enters the dispenser (11), and CO<sub>2</sub>-rich water (B) which exits from the opposite end through the mesh cover (12), thus ensuring a uniform concentration of carbon dioxide in the tank.